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BANGLADESH LANDSAT-2 PROGRAMME

REPRODUCTION

I. INTRODUCTION

Title of Investigation

Investigations using data from  
Landsat- 2

Investigation Number

G 27950

Principal Investigator

Dr. Anwar Hossain,  
Chairman, Bangladesh Atomic Energy  
Commission and Director-General,  
Landsat Programme.

Name and Address of  
Principal Investigator's  
Organisation

Bangladesh LANDSAT Centre.  
House No. 605, Road No. 18,  
Dhanmondi Residential Area,  
Dacca, Bangladesh.

Date

April, 1977.

Type of Report and  
Period covered

Quarterly Report  
January-March, 1977.

Name and Address of  
National Sponsoring Agency  
N77-23566

Bangladesh National ERTS Programme  
Science & Technology Division,  
Ministry of Education,  
Government of the People's Republic  
of Bangladesh, Dacca.

II. TECHNIQUES G3/43 00152

Unclas

An independent Photographic Laboratory has been set up in the ERTS (Landsat) Centre. A locally manufactured Contact Printer ( 12"X10" ) and a Fuji Enlarger Model N-690 MF have been commissioned in the ERTS Centre. With these facilities we can reproduce Landsat imageries at different sizes. We have also procured positive film for reproducing 9½" Negative of EROS Data Centre into 9½" dia-positive (Positive Transparency). Recently Diazo Printer has also been set up in the ERTS Centre. The black and white and Diazo colour Prints of Landsat imageries are used in conjunction with aerial Photographs and ground truth data for analysis.

III. ACCOMPLISHMENTS

Government of Bangladesh has released funds for operation of the Landsat

Period covered

Name and Address of  
National Sponsoring Agency  
N77-23566

3 P  
CSCL 05B

January-March, 1977  
Bangladesh National ERTS Programme  
Science & Technology Division,  
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III. ACCOMPLISHMENTS

Government of Bangladesh has released funds for operation of the Landsat Programme. Full-time regular supporting staff has been appointed. UNDP has ordered some equipment/materials, part of which have already arrived Bangladesh and others are expected soon. Under UNDP/FAO sponsorship, Professor Norman H. MacLeod, (Director, Earth Resources Development Institute, Washington), was available in Bangladesh for two months (December 8, 1976 to February 8, 1977) as a Consultant for Bangladesh Landsat Programme. He made valuable contributions for our Programme. He helped us in preparing a Programme to be financed by IBRD in connection with preparation of Land-use Map ( Digital) of Bangladesh, using Landsat imageries. Another Project for studies of water-shed areas for Chittagong Hill Tracts and Surface Water Distribution and Salinity Intrusion in the South-West Bangladesh has been prepared and submitted to IDRC of Canada. IDRC has awarded a grant for \$131,900 for this Project. This is under processing by our Ministry for formal acceptance.

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Two ground truth missions were undertaken in January 1977 by Landsat Task Force for surveying the coastal area of Bangladesh. One was aerial survey in a low flying Aeroplane of the Plant Protection Department and another was on Fisheries Department's Research vessel "M.V. Machranga". Two member delegation from Landsat Task Force attended an UN Regional Training seminar on Remote Sensing applications held in Karachi (Pakistan) from January 17-28, 1977. Four members of the Task Force participated in the 1st Bangladesh National conference on Forestry held in Dacca from February 11-15, 1977.

Bangladesh Landsat Task Force has initiated a proposal for setting up a National Remote Sensing Centre with the ground station for resource Satellite data. Government is examining the proposal and may approach UNDP for financial support during 1978-81 country programme.

#### IV. SIGNIFICANT RESULTS

1. A Govt. Notification has been issued on the basis of Landsat mosaics of the coastal area for setting aside the new lands for afforestation in the coastal area. Forest Department is taking necessary steps for its implementation.
2. Landsat imageries of different years (1972-76) have been supplied to Bangladesh Water Development Board for studies.
3. Landsat imageries of Mirpur Area of Dacca District have been used in connection with surveys for black plastic clay. The imageries showed the broad pattern of small valleys cutting into "Madhupur" clay.
4. Land-use maps of Haor (low-lying) areas of Sylhet and Mymensingh districts have been prepared. As a test case, two thana (police station) areas namely Nickley and Astagram have been classified in different categories such as crop, settlement and water etc. It does not show much agreement with the Agriculture Department's Statistics. This is under further investigation,

#### V. PUBLICATIONS:

1. Landsat (ERTS) activities in Bangladesh-  
M.A.H. Pramanik  
Presented at the UN regional Training Seminar of Remote Sensing Applications held in Karachi (Pakistan), January 17-28, 1977.
2. Studies on National Resources through Remote Sensing Technology in Bangladesh-  
- Q.T. Hossain.  
Presented at the UN Regional Training seminar on Remote Sensing Applications held in Karachi (Pakistan), January 17-28, 1977.
3. Report on the participation in the UN Regional Seminar on Remote Sensing applications held in Karachi, January 17-28, 1977.  
- M.A.H. Pramanik, February 1977.
4. Case studies: Bangladesh Environment  
-M.U. Chaudhury  
- Presented at the 1st Bangladesh National conference on Forestry held in Dacca from February 11-15, 1977.

5. Resource Data Collections with Satellite  
- A.M. Choudhury,  
Presented at the first National Statistical Conference held in Dacca  
from 7-9 March 1977.
6. A mosaic map of coastal area of Bangladesh in Band 6-March 1977.
7. Earth Resources Technology Satellites (ERTS) Programme  
-A. Hossain, M.U. Choudhury, M.A.H. Pramanik and N.H. MacLeod  
Published in the Bulletin of the Bangladesh Physical Society "THE  
PHYSICIST", Vol- 1 March, 1977, PP 10-14.

VI. PROBLEMS

Appointment of Long-term Remote Sensing adviser and full-time Officers as well as procurement of sophisticated equipment are in the process.

VII. DATA QUALITY AND DELIVERY

The quality of the data products is good. An order form amounting to \$2000 for Landsat-2 imageries has been sent to EROS Data Centre, Sioux Falls. This needs transfer of \$2000 from our CCT account #GB 7950-0003806 to Landsat account #C 27950-0003798. A request has been already sent to NASA for this transfer.

VIII. RECOMMENDATIONS

Bangladesh is building up its remote sensing capabilities and trying to develop a National Remote Sensing Centre with a Ground Station for resource Satellite data. NASA may support Bangladesh for its Ground Station.

NASA may also ensure continuity of Landsat Satellites. Proposal for participation in Landsat-C has been sent. This may be accepted. NASA is further requested to enhance our Budget for Landsat data products to be ordered from EROS Data Centre, Sioux Falls.

IX. CONCLUSIONS

Landsat imageries have found useful utilization in Bangladesh natural resource development activities. The equipment and materials available as well as manpower trained through UNDP/IDRC/IBRD assistance will help Bangladesh in building up its infra-structure in Remote Sensing activities. These will be ultimately used for the ground station installation in the country. Bangladesh desires to get continued support from NASA in the future.